

Rabbit PDX1 Polyclonal Antibody | anti-PDX1 antibody

PDX1 Antibody

CATALOG # AAA326899	HOST Rabbit	REACTIVITY Human, Mouse, Rat	APPLICATIONS ELISA, Immunohistochemistry, Western Blot
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PRODUCT SYNONYMS

PDX1; Polyclonal Antibody; PDX1 Antibody; Glucose sensitive factor; Glucose-sensitive factor; GSF; IDX 1; IDX-1; IDX1; Insulin promoter factor 1; Insulin promoter factor 1 homeodomain transcription factor; Insulin upstream factor 1; IPF 1; IPF-1; IPF1; Islet/duodenum homeobox 1; Islet/duodenum homeobox-1; IUF 1; IUF-1; IUF1; MODY4; Pancreas/duodenum homeobox 1; Pancreas/duodenum homeobox protein 1; pancreatic and duodenal homeobox P; PDX 1; PDX-1; PDX1_HUMAN; Somatostatin transactivating factor 1; Somatostatin-transactivating factor 1; STF 1; STF-1; STF1; anti-PDX1 antibody

PRODUCT SPECIFICATIONS

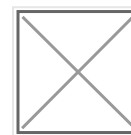
Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Isotype	IgG
Specificity	PDX1 antibody detects endogenous levels of total PDX1
Purity/Purification	The antiserum was purified by peptide affinity chromatography using SulfoLink Coupling Resin.
Form/Format	Liquid Phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Concentration	1mg/ml (varies by lot)
Sequence Length	283
Applicable Applications for anti-PDX1 antibody	ELISA, IHC (Immunohistochemistry), WB (Western Blot)
Immunogen	A synthetic peptide of human PDX1
Subcellular Location	Nucleus.
Tissue Specificity	Duodenum and pancreas (Langerhans islet beta cells and small subsets of endocrine non-beta-cells, at low levels in acinar cells).
Conjugation	Unconjugated
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.

IMAGES



IHC (Immunohistochemistry)

AAA326899 at 1/100 staining Rat lung tissue by IHC-P. The sample was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The sample was then blocked and incubated with the antibody for 1.5 hours at 22 degree C. An HRP conjugated goat anti-rabbit antibody was used as the secondary.



WB (Western Blot)

Western blot analysis of PDX1 expression in Mouse muscle lysate



WB (Western Blot)

Western blot analysis of Jurkat whole cell lysates, using PDX1 Antibody. The lane on the left is treated with the antigen-specific peptide.

ADDITIONAL INFORMATION

Related Product Information for anti-PDX1 antibody	Description: The protein encoded by this gene is a transcriptional activator of several genes, including insulin, somatostatin, glucokinase, islet amyloid polypeptide, and glucose transporter type 2. The encoded nuclear protein is involved in the early development of the pancreas and plays a major role in glucose-dependent regulation of insulin gene expression. Defects in this gene are a cause of pancreatic agenesis, which can lead to early-onset insulin-dependent diabetes mellitus (NIDDM), as well as maturity onset diabetes of the young type 4 (MODY4). Function: Activates insulin, somatostatin, glucokinase, islet amyloid polypeptide and glucose transporter type 2 gene transcription. Particularly involved in glucose-dependent regulation of insulin gene transcription. As part of a PDX1:PBX1b:MEIS2b complex in pancreatic acinar cells is involved in the transcriptional activation of the ELA1 enhancer; the complex binds to the enhancer B element and cooperates with the transcription factor 1 complex (PTF1) bound to the enhancer A element. Binds preferentially the DNA motif 5'-[CT]TAAT[TG]-3'. During development, specifies the early pancreatic epithelium, permitting its proliferation, branching and subsequent differentiation. At adult stage, required for maintaining the hormone-producing phenotype of the beta-cell. Subunit Structure: Interacts with the basic helix-loop-helix domains of TCF3(E47) and NEUROD1 and with HMG-I(Y). Interacts with SPOP (By similarity). Interacts with the methyltransferase SETD7. Part of a PDX1:PBX1b:MEIS2b complex. Post-translational Modifications: Phosphorylated by the SAPK2 pathway at high intracellular glucose concentration. Phosphorylated by HIPK2 on Ser-268 upon glucose accumulation. This phosphorylation mediates subnuclear localization shifting. Phosphorylation by PASK may lead to translocation into the cytosol (By similarity). Similarity: The Antp-type hexapeptide mediates heterodimerization with PBX on a regulatory element of the somatostatin promoter. The homeodomain, which contains the nuclear localization signal, not only mediates DNA-binding, but also acts as a protein-protein interaction domain for TCF3(E47), NEUROD1 and HMG-I(Y). Belongs to the Antp homeobox family. IPF1/XI Hbox-8 subfamily.
References	Wang Y, Liu J, Liu Z, Chen J, Hu X, Hu Y, Yuan Y, Wu G, Dai Z, Xu Y; Journal: Biomed Pharmacother. Sall2 knockdown exacerbates palmitic acid induced dysfunction and apoptosis of pancreatic NIT-1 beta cells.

NCBI AND UNIPROT INFORMATION

NCBI GI #	4557673
NCBI GeneID	3651
NCBI Accession #	NP_000200.1
NCBI GenBank Nucleotide #	NM_000209.3
UniProt Accession #	P52945 ; O60594 ; Q5VYW2
Molecular Weight	Observed: 31 kDa Predicted: 31 kDa
NCBI Official Full Name	pancreas/duodenum homeobox protein 1
NCBI Official Synonym Full Names	pancreatic and duodenal homeobox 1
NCBI Official Symbol	PDX1
NCBI Official Synonym Symbols	GSF; IPF1; IUF1; IDX-1; MODY4; PDX-1; STF-1; PAGEN1
NCBI Protein Information	pancreas/duodenum homeobox protein 1
UniProt Protein Name	Pancreas/duodenum homeobox protein 1
UniProt Gene Name	PDX1

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/polyclonal/pdx1-antibody-immunohistochemistry-western-blot-elisa/326899>